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# Transmit

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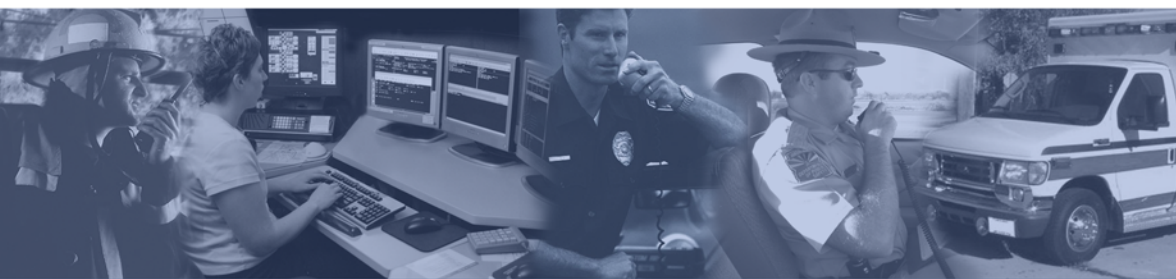
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## Our Mission:

To enable real-time, interoperable communications between local, county, state, tribal, and federal public safety entities in the State of Arizona to effectively protect lives and property.



PSCC

### Reflecting on a historic meeting



Curt Knight

Since it was established by the Arizona State Legislature in 2004, the Arizona Public Safety Communications Commission (PSCC) has made a number of important decisions regarding the effort to dramatically advance Arizona's emergency services communications system.

However, no decisions made by the Commission up to this point have been weightier, or more landmark, than those made at the PSCC meeting on April 24 in Peoria.

The decisions made by the PSCC at that two-hour, mid-day meeting formalized the technical standards that will be adhered to and the direction that will be taken in the design and construction of a statewide, interoperable, public safety radio communications system for Arizona.

Essentially, the decisions made at the meeting will allow us to begin talking less about what we might do in the future to help Arizona remedy its interoperability woes, and start taking specific action based upon the well-researched course that was set.

One specific course of action already underway is to demonstrate day-to-day interoperability on a shared public safety radio system featuring the technical standards adopted at the April 24 meeting as well as the benefits of utilizing such a system during a major event like the upcoming Super Bowl.

With more specifics known, we can also more accurately work on budgetary figures for the statewide system after it is demonstrated on a small, but high-profile scale.

In addition, we can also start strengthening relationships with other agencies that use similar radio systems now that we know what the statewide system will look like.

Such relationships will help us leverage existing, advanced radio systems to bring a true interoperability solution to Arizona's first responders much faster and without unnecessary duplicate systems.

Ultimately, the decisions made by the PSCC in Peoria on April 24 send a clear message that Arizona's inter-agency communications solution is finally moving beyond a patchwork of short and interim-term interoperability, to a statewide solution driven by first responder needs and common technical standards.



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## Critical interoperability demonstration project to follow big decisions

*Project could have major impact on the future of interoperability in Arizona and Super Bowl 2008*

From its very first moments as an official entity, the Arizona Public Safety Communications Commission (PSCC) knew it had some extremely important decisions to make.

The decisions would influence, quite dramatically, every aspect of the organization's efforts to successfully oversee the design and construction of a statewide, interoperable public safety radio communications system in Arizona.

The decisions, once made, would also help propel the Commission from the sometimes frustrating realm of having to constantly weigh its seemingly infinite number of options for solving Arizona's interoperability woes, into the exciting realm of actually doing something to solve them.

At the PSCC meeting on April 24 in Peoria, these monumental decisions with very far-reaching effects for Arizona's first responders were made when the PSCC formally adopted the technical standards that will be adhered to and the direction, or road, which will be taken in bringing a statewide interoperable solution to Arizona.

"These are definitely not the only huge decisions the Commission will make, but they are clearly the most landmark and important decisions we have made up to this point," said Curt Knight, Executive Director of the PSCC. "By making these decisions, the Commission has essentially put a major stake in the ground that gives us a much clearer picture of what Arizona's interoperability solution will actually look like. An incredible amount of research and consensus building had to be done for us to get to this point to ensure this chosen direction would best meet the needs of Arizona's first responders."

The decisions, now that they are made, will allow the PSCC to move away from having to endlessly evaluate all of the different, complex options that could be utilized in bringing an interoperable solution to Arizona, and start focusing on how to best

make use of the technology direction chosen.

"With our main focus and technology direction established, we can begin taking more specific actions to accomplish our mission," Knight said. "It is very exciting, although it will lead to more decisions down the road. But now we have some elements we can start working on immediately."

The technical standards adopted at the April 24 meeting dictate that the statewide interoperability solution for Arizona will be based upon a single-band, 700 MHz, trunked voice radio system using a Project 25 standards-based architecture.

In addition, the radio system will have, among other things,

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### Preparing for the April 24 PSCC meeting

*The landmark decisions made by the Arizona Public Safety Communications Commission (PSCC) at its April 24 meeting in Peoria were significantly influenced by activities that took place roughly a month earlier at an informal, day-long focus session (pictured above) in Phoenix. Those attending the focus session helped put the finishing touches on the detailed, well-researched recommendations brought to the PSCC for approval on April 24.*

## Demonstration project ...

CONTINUED FROM PAGE 3

advanced digital features and integrated low speed data capabilities all supported by a modern digital microwave backbone across the state.

While deciding upon this single band solution at 700/800 MHz, the Commission also stressed the importance of support for existing VHF and UHF systems through the AIRS network, additional national mutual aid channels as well as high level network connections to existing systems.

Thankfully, the technical standards adopted at the April 24

The technical standards adopted at the April 24 meeting dictate that the statewide interoperability solution for Arizona will be based upon a single-band, 700 MHz, trunked voice radio system using a Project 25 standards-based architecture. In addition, the radio system will have, among other things, advanced digital features and integrated low speed data capabilities all supported by a modern digital microwave backbone across the state.

PSCC meeting closely align with those of one of the most advanced, existing public safety radio systems in the state.

This advanced system, the joint Phoenix Regional Wireless Network (PRWN) and the Trunked Open Arizona Network (TOPAZ), can therefore be leveraged substantially in helping the PSCC begin the actual construction of a statewide, interoperable public safety radio system.

PRWN/TOPAZ, which currently supports a large and growing number of public safety and public service departments operating in both Phoenix and Mesa, can also be used to help the PSCC launch an exciting interoperability demonstration project.

The purpose of the demonstration project, which the PSCC currently has funding for, will be to show improved day-to-day interoperability between local, county, state, tribal

and federal public safety responders on a shared radio system featuring the technical standards adopted on April 24.

"The interoperability demonstration project will not be something that is built up, deployed and then taken down," Knight said. "The work done during the demonstration project, which has already begun, will remain in place and become a genesis or key building block for the statewide, interoperable, public safety radio system."

The PSCC hopes to have the demonstration project up and running so it can demonstrate improved interoperability through shared systems during Super Bowl 2008 and related events across the Valley.

The Super Bowl, which will draw 73,000 fans to University of Phoenix Stadium and at least 50,000 additional fans to the Valley, is less than 10 months away.

"While radio communications planning for Super Bowl 2008 has already begun, the PSCC would like to facilitate these planning efforts through our interoperability demonstration project," Knight said. "The operational needs of the various agencies participating in the Super Bowl and related events will place maximum stress on all local

communications systems. As a result, the demonstration project will provide a significant improvement in supporting regional communications interoperability for stadium operations and other Super Bowl events."

The PSCC's proposed first step for launching its interoperability demonstration project would get more 800 MHz radios into the hands of officers with the Department of Public Safety (DPS).

Currently, DPS operates on UHF (450 MHz) frequencies while a growing number of the other public safety agencies in the Phoenix metropolitan area operate on 800 MHz systems.

"This relatively simple step alone would provide dramatic interoperability communications improvements for multi-agency law enforcement operations during Super Bowl events and enhance the interoperability demonstration project," Knight said.

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## Demonstration project ...

CONTINUED FROM PAGE 4

The PSCC's second step towards dramatic, near-term improved interagency communications would add to the existing PRWN/TOPAZ infrastructure.

Additions to the infrastructure of this critical radio system would give it more capacity and reliability so it could handle new users migrating to it in order to take part in the interoperability demonstration project and, ultimately, the developing statewide interoperable solution.

Specifically, the PSCC proposes the installation of a new PRWN/TOPAZ trunk site located at the DPS facility on the White Tanks Mountain site just west of Phoenix.

However, adding to the existing PRWN/TOPAZ infrastructure by making this significant addition to the White Tanks Mountain site can happen before or after Super Bowl 2008.

"We can still demonstrate improved interoperability on a shared radio system as part of our demonstration project at the Super Bowl if the 'White Tanks' project is not completed by the time of the event," Knight said. "There is a major misconception that 'White Tanks' has to be completed in time for the Super Bowl. This is not true."

Knight said the misconception exists because some people still view the interoperability demonstration project solely as a short-term technology initiative that stops when the Super Bowl events are over.

In reality, the demonstration project is much more than a technology initiative alone, especially because many would argue technology issues related to achieving interoperability are the easy part.

What also needs to be demonstrated to effectively create true interagency communications are the long-term partnerships between state, local, tribal and federal agencies that determine how shared radio systems are jointly funded, operated, managed and governed for the mutual benefit of all participants.

In addition to what has already been mentioned above, the demonstration project is also designed to show the benefits of day-to-day interoperability and provide the PSCC with transitional strategies to migrate participants from existing "stove-pipe" radio systems to shared systems.

However, the most valuable thing the PSCC hopes the interoperability demonstration project will provide will be lessons learned.

"The lessons learned during the demonstration project will be carefully scrutinized, studied and examined to help the PSCC construct the actual statewide, interoperable public safety radio system, or system of systems, for Arizona," Knight said. "The importance of the demonstration project can't be understated."

In the end, the technical standards chosen for Arizona's interoperability solution and the important demonstration project related to those standards, which will become part of the statewide interoperability solution, will always have tentacles reaching back to the decisions made at the April 24 PSCC meeting.

"That meeting really was a big deal," Knight said. "The decisions made there will affect, in some way or another, everything the PSCC does from this point forward."

## More than seventy agencies have signed an MOU to utilize AIRS

As of late May, more than 70 agencies have signed a Memorandum of Understanding to participate in the use of the Arizona Interagency Radio System (AIRS) for mutual aid operations.

AIRS is intended to provide an immediate interoperability solution for the state pending the final design and deployment of the more comprehensive, robust, interoperable radio network.

The recently revamped system has already been used to provide radio interoperability between different agencies during several multi-agency law enforcement operations around the state.

Most activations of the AIRS network so far have been scheduled in advance to support pre-planned details, but the system was used to a high degree of success in an unscheduled, emergency-type capacity following a jailbreak incident in Kingman.

To take full advantage of the interim-interoperability improvements the AIRS radio network brings to Arizona's first responders, all users must first have entered into a Memorandum of Understanding (MOU) with the Arizona Public Safety Communications Commission (PSCC).

In addition, all users must program their mobile and portable radio equipment to take advantage of the AIRS network.

If your agency is not currently participating in AIRS, please visit the following web address to complete your submission online: <http://www.azdps.gov/pscc/survey.asp>

You may also contact Ms. Renee Larson at the PSCC Support Office at (602) 271-7401.

Future issues of Transmit will feature additional updates on AIRS.



## Police agencies using "cellular jammers" could jeopardize public safety

*The devices could disrupt critical emergency service radio traffic in addition to cell phone calls*

The groups and individuals charged with maintaining the constant integrity and reliability of the various emergency services radio systems as they currently exist in Arizona have a somewhat worrisome problem on their hands.

The problem comes in the form of a highly controversial product currently being marketed and sold to, ironically, one of the most important users of Arizona's emergency services radio systems - law enforcement agencies.

The product, which is called a multiple frequency disruptor, or "cellular jammer," is capable of interfering with the frequencies that make it possible for individuals to use their cellular telephones or personal communications service (PCS) telephones.

The product comes in a variety of shapes and sizes and is available up to 100 watts.

It has already been purchased by several law enforcement agencies in the United States, including a handful in Arizona.

Agencies purchasing the product hope it will allow them to prevent, jam or interfere with cellular telephone calls placed by suspects, bad guys, or criminal groups if doing so would be advantageous during certain law enforcement situations, especially those tactical in nature.

Although the device could prove beneficial to specialized law enforcement units in certain situations, it actually carries the risk of causing much greater harm to public safety than good, according to public safety telecommunications officials in Arizona and across the country.

After all, a law enforcement agency using one of the devices during an operation could very likely interfere with not only a suspect's cellular telephone call, but also the frequencies critical to the successful operation of their very own agency's radio system.

Ironically, the public safety radio system "chan-



### More than bargained for

*Many law enforcement agencies purchasing cellular jammers are unaware that the devices could also seriously disrupt their own agency's radio system.*

nel" a law enforcement agency could interfere with by using a "cellular jammer" could be the very one they are relying on to conduct the operation in which they have deployed the device.

In addition, the device could also interfere with the frequencies critical to the radio systems of other, uninvolved public safety agencies in the area, not to mention countless other wireless audio and video frequencies used by private enterprise.

In addition, use of the controversial product could also potentially interfere with the cellular telephone

conversations of victims or innocent bystanders in the vicinity of an activated device who may be trying to dial 911 or communicate life-saving information with emergency dispatchers.

The devices carry this tremendous risk because they are not truly directional and they disrupt multiple frequencies.

"Law enforcement agencies purchasing these devices today are likely not aware of all of the extreme risks they can create for their own people and the public because the product's marketing materials expound almost exclusively on the positive," said Curt Knight, Executive Director of the Arizona Public Safety Communications Commission (PSCC).

Thankfully, no disastrous scenarios resulting from a law enforcement agency's use of one of the products have played out in Arizona yet.

However, at least one law enforcement agency in Arizona has already unintentionally interfered with its own agency's radio transmissions, and possibly the transmissions of other nearby public safety agencies by using the product.

Manufacturers of the "cellular jammers" do not maintain that the products are even legal for law enforcement use and are asking individual agencies to determine that for themselves.

The devices have been illegal for civilian use for some time and the Federal Communications Commission (FCC) has gone after product manufacturers as well as users aggressively.

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## Renee Larson joins PSCC Support Office following promotion

The Arizona Public Safety Communications Commission (PSCC) is very pleased and excited to welcome Ms. Renee Larson to its Support Office staff.

Larson, a lifelong Arizona resident, officially joined the PSCC Support Office in February after being promoted to Administrative Services Officer by the Arizona Department of Public Safety (DPS).

She replaces Mrs. Holly Burkenbine who recently left the PSCC Support Office to accept a position within the DPS Wireless Systems Bureau.

Larson began her career with DPS as a Clerk Typist on Oct. 12, 1986. She was promoted to Administrative Secretary a short time later and served within a variety of units at DPS over the next several years, including the agency's Operational Communications Bureau where she remained until her promotion.

Larson received the prestigious Director's Unit Citation award at DPS on two separate occasions for her exemplary work as part of leading, innovative teams or work "units" at DPS.

She assumes a myriad of important responsibilities in her new role with the PSCC Support Office, including the management of the PSCC's multiple and critical Memorandum of Understanding agreements with various agencies.



**Renee Larson**

Larson will also be responsible for completing and submitting a variety of important budgetary reports as they relate to PSCC activities and expenditures.

In addition, she will have a very heavy hand in making sure the PSCC Support Office and Commission itself operates as a well-oiled machine by managing things like travel credit cards, PSCC vehicle maintenance and the processing of items like employee and Commissioner travel reimbursement claims.

In addition, Larson will also be responsible for the complete management of the PSCC's audio visual equipment, including set-up and tear down following meetings, and she will also be charged with finding and securing appropriate, well-negotiated meeting locations for the PSCC.

Believe it or not, those are just some of the responsibilities Larson assumes in her new role.

Although she misses her long-time coworkers within the Operational Communications Bureau at DPS, where she had been assigned since 1998, she said she is enjoying the challenges of her new job and is very proud to have an active role in facilitating the effort to advance Arizona's emergency services communications system.

## Cellular jammers ...

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Entities responsible for maintaining and enhancing the integrity and reliability of the emergency services radio systems in Arizona, including the PSCC, would like to strongly discourage law enforcement agencies in the state from purchasing "cellular jammers."

Until much better control, knowledge and risk assessment measures have been taken to ensure such devices don't endanger more lives than they could possibly protect, it would also be best for law enforcement agencies that already own such devices not to use them.

In addition, the complex legal and liability issues associated with the use of multiple frequency disruptors by law enforcement agencies are going to be looked at much closer which could likely determine that the use of such devices will always create more risk than they eliminate.

## Public safety telecom jobs open

The telecommunications positions listed at the bottom of this article are currently open within the Arizona Public Safety Communications Commission (PSCC) and the Wireless Systems Bureau of the Arizona Department of Public Safety (DPS).

The PSCC is going to continue advertising some of the open public safety telecommunications positions throughout Arizona in issues of *Transmit* as a means of promoting healthy, professional staffing levels within the public safety units that help ensure the security of Arizona's citizens through specialized telecommunications work.


For more information about the following positions, including salary levels, please call DPS' Human Resources Bureau at (602) 223-2290 or visit DPS' website at: [www.azdps.gov](http://www.azdps.gov)

TELECOMMUNICATIONS SUPERVISOR - FLAGSTAFF  
TELECOMMUNICATIONS TECHNICIAN - FLAGSTAFF - PHOENIX  
TELECOMMUNICATIONS ENGINEER I - PHOENIX  
TELECOMMUNICATIONS SPECIALIST - PHOENIX



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